

# *Field Report*

## **Santa Monica Mountains National Recreation Area**

### ■ 1.0 Summary

The Santa Monica Mountains National Recreation Area (NRA), located in Los Angeles County, California, covers over 150,050 acres of land and includes an impressive array of mountains and several state and county beaches (See Figure 1). Over half a million visitors visit the NPS site each year. Ownership of the land is mixed. Private citizens own over half; the rest is a mixture of federal, state, and local agency ownership. As the mountains are located in a Southern Mediterranean biome, one of only five in the world, the Park is unique not only to the area but also to the whole United States. The Santa Monica Mountains NRA was created in 1978 to “preserve and enhance its scenic, natural, and historical setting and its public health value as an air shed for the southern California metropolitan area, while providing for the recreational and educational needs of the visiting public.” Its urban location subjects the Park to tremendous pressures from the visiting population and from surrounding development.

Accessing and touring the Park is difficult without the use of an automobile. Several of the Park’s highways, which travel through the mountains to the Pacific Coast Highway (California Highway 1), are heavily-trafficked commuter routes, with congestion, unsafe travel speeds, and conflicts between commuter and recreational traffic. Congestion along the Pacific Coast Highway is also a problem during peak commute hours and holiday weekends. Alternative transportation solutions, which are summarized below, could include:

- **Tourist and Transit Shuttle Services** – There are a number of opportunities for shuttle and transit services within the Park. For example, a tourist shuttle could service points of interest along Mulholland Highway. Another possibility would be a demand-responsive shuttle servicing multiple points within the NRA. This type of service would allow visitors to experience a variety of sites within the Park, and would allow one-way use of hiking trails. Existing summer bus shuttles from neighboring cities could be expanded to include drop off and pick up of visitors at selected points within the NRA. A summer bus shuttle connecting the NRA beaches to the Metropolitan Transit Authority’s (MTA) bus routes and the nearest Metro Rail stop would be useful as well. A circular transit shuttle could be run through Malibu Canyon and Zuma Canyon up to Mulholland Highway. This circular shuttle would access a new NRA trailhead and scenic vistas. Finally, vanpools for the NPS staff living in neighboring would further reduce automobile usage.

**Figure 1. View of Santa Monica Mountains National Recreation Area**



- **Improved Transit Service** – Coordination with local transit services is required to improve access to the NRA. There is limited MTA bus service along Pacific Coast Highway (PCH); ideally, MTA bus service could extend the length of the NRA beachfront out to Point Mugu with shorter and more regular headways. Bus service to the Park could also be made possible from the Ventura Freeway. Additionally, any public transit service should stop at transit and tourist shuttle staging areas that would serve the Park.
- **Park-and-Ride Facilities** – Park-and-ride facilities adjacent to the Ventura Freeway could be serviced by express bus and feeder bus services to downtown Los Angeles. This type of facility would reduce the daily commuter traffic flowing north-south through the mountains. Reductions in commuter traffic would greatly reduce negative environmental impacts on the NRA.
- **ITS Technologies** – A traveler and parking information system would reduce the pressures on the transportation infrastructure by providing status and routing information. Real-time directional signs leading to available parking and recreational sites would reduce aimless driving within the Park. Information and routing for transit would facilitate travel by public transportation.

- **Improved Bicycle Facilities** – Several bike initiatives are underway and there is interest in several more. Bike lanes and bike paths are under consideration for areas adjacent and within the Santa Monica Mountains NRA. The proposed biking facilities will have to overcome the challenges posed by the mountainous terrain and limited shoulder space along roads.
- **Boat Tour** – Boat tours could run in the peak summer months starting at the Malibu and Santa Monica Piers and traveling the coast of the NRA. Initial service could include four trips a day for an hour-long boat ride; service levels could increase as demand rises.

## ■ 2.0 Background Information

### 2.1 Location

The Santa Monica Mountains NRA is located in southern California, just west of Los Angeles (See Figure 2). It is bordered on the south by the Pacific Ocean and California Highway 1. The NRA coastline runs 46 miles from Point Mugu in Point Mugu State Park on the west to the Santa Monica Pier in Santa Monica on the east. One small inland section of the Park extends farther east, running along Mulholland Drive to U.S. 101 (Ventura Freeway). The Santa Monica Mountains NRA is bordered on the north by U.S. 101 and the municipalities of Thousand Oaks, Simi Hills, Westlake Village, Agoura Hills, Calabasas, Woodland Hills, Encino, and Sherman Oaks. It is bordered on the west by Oxnard Plain and on the east by Brentwood, Bel Air, Beverly Hills, and West Hollywood. The cities of Topanga and Malibu lie within the NRA. The NRA falls into two counties, Los Angeles and Ventura.

The NRA's Headquarters and Visitor Center are located in Thousand Oaks, just outside of the Park's boundaries. The State Park District Headquarters are within the NRA on Las Virgenes Road, just south of Mulholland Highway.

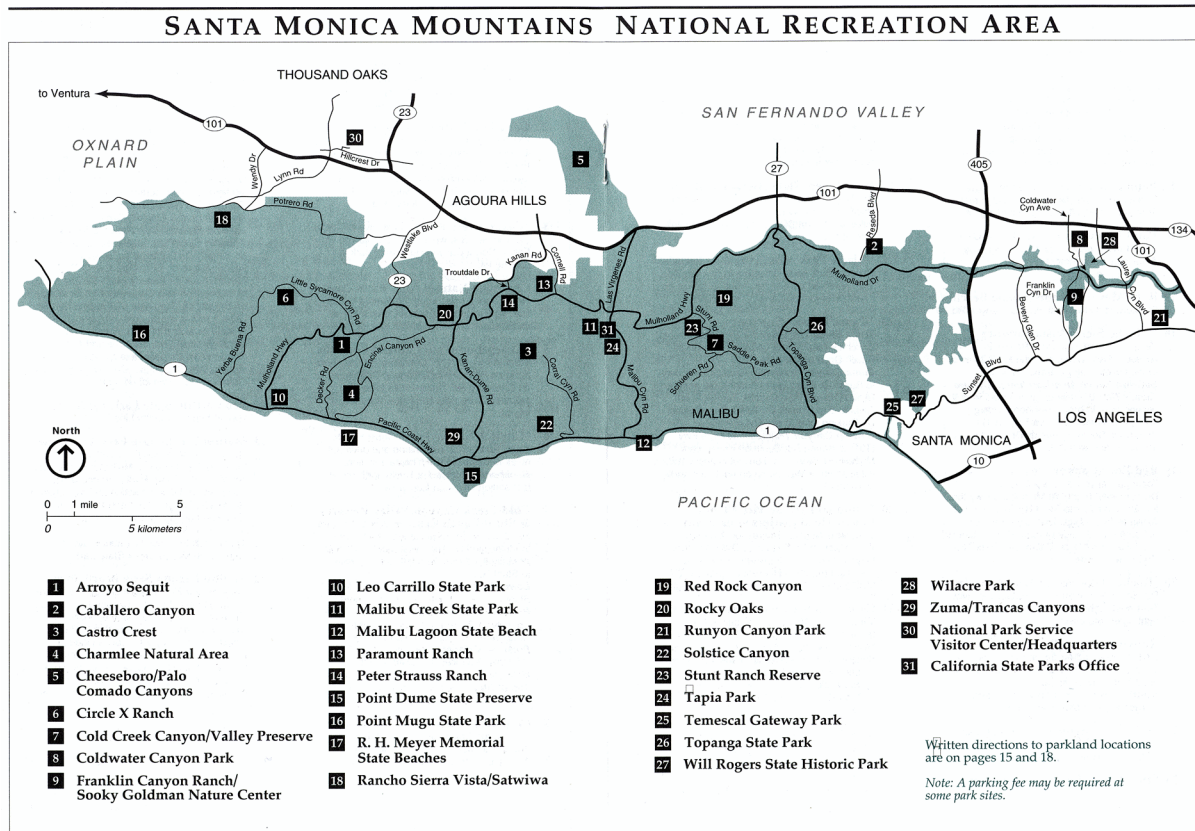
### 2.2 Administration and Classification

The Santa Monica Mountains NRA is a NPS unit. It was created in 1978. Ownership of the land is mixed. Over half of the land (58 percent) is privately-owned. The remaining land is owned by the NPS (14 percent) and other agencies (28 percent), including California State Parks, the Santa Monica Mountains Conservancy, and the Los Angeles County Department of Beaches and Harbors. The site attracts recreational visitors from the surrounding metropolitan area, as well as from other regions and countries.

State parks within the NRA boundary include Point Mugu State Park, Malibu Creek State Park, Topanga State Park, Will Rogers State Historic Park, Point Dume State Reserve, and several state beaches. There are also county and town beaches within the NRA boundaries.

Currently there are about 80 NPS staff serving at the Santa Monica Mountains NRA. The Park's volunteer program, Volunteers in Parks (VIP) provides about 800 volunteers.

**Figure 2. Map**



## 2.3 Physical Description

The Santa Monica Mountains NRA covers 150,050 acres. The mountains are located in a Southern Mediterranean ecosystem, one of only five such ecosystems in the world, and contain a wide variety of plants and wildlife. Over 50 species of mammals and 380 species of birds, including a number of threatened and endangered species, live within the NRA. The NRA consists of several habitats including beaches/dunes, grasslands, and woodlands.

The NRA's attractions are spread throughout the site. The 55-mile scenic drive comprising sections of Mulholland Highway and Mulholland Drive runs through the NRA from Leo Carrillo State Park on Pacific Coast Highway (PCH) in the west, to the Ventura Freeway past the Runyon Canyon Park in the east. The Highway connects many of the NRA's special features.

The NRA contains over 580 miles of public trails. The major trail of the NRA, the Backbone Trail, is under development. The trail is expected to be complete within five years, at which time it will extend about 65 miles and link major attractions in the Park.

## **2.4 Mission and Goals**

The Santa Monica Mountains NRA was created in 1978 to “preserve and enhance its scenic, natural, and historical setting and its public health value as an air shed for the southern California metropolitan area, while providing for the recreational and educational needs of the visiting public.” (PL95-695)

The 1978 Act creating the Park specified that it would be administered as a unit of the NPS and it would follow the directive assigned in the NPS Organic Act of 1916 (as amended). The Act states that the NPS is to “conserve the scenery and the natural and historic objects and wildlife therein and to provide for the enjoyment of the same in such a manner and by such means as will leave them unimpaired for the enjoyment of future generations.”

The NPS is in the process of updating the General Management Plan (GMP) for the Santa Monica Mountains NRA, including the Park goals that address areas of resource protection, development, land use and ownership, visitor experience, access and transportation, and operations. As the GMP stands currently, the NRA’s transportation goal is to promote development of efficient transportation both within the Park and to the Park from locations throughout southern California.

## **2.5 Visitation Levels and Visitor Profile**

In 1998, visitation was estimated to be about 561,000. As is evident in the chart below, visitation has increased approximately 30 percent from 1994 to 1998. According to a visitor survey report conducted in 1993, most visitors came with families (35 percent) or friends (30 percent) to visit the Santa Monica Mountains. Most (61 percent) were repeat visitors. Almost 40 percent of repeat visitors had made 10 or more visits to the Santa Monica Mountains. Seven percent of visitors came from foreign countries. Of the remaining 93 percent, seven percent came from a state other than California.

Visitation is highly influenced by the season and activity. The mountains are visited most frequently in the spring and least frequently in the summer. The beaches, naturally, are visited most in the summer and least in the winter. Recreation visitation often peaks during long holiday weekends, like Labor Day and Thanksgiving.

Visitation is higher on the weekends than on weekdays. Most visitors (52 percent) stay two to three hours. Twenty-three percent of visitors stay four or five hours. More than one-third of visitors arrive between 8:00 a.m. to 9:30 a.m. Typically, visitors use private automobiles to access the NRA. Others access the site by bike, on foot, by horse, or with public transportation.

Visitors to the beaches (who are counted separately from visitors to the Santa Monica Mountains NRA) account for over 30 million visits per year.

## ■ 3.0 Existing Conditions, Issues and Concerns

### 3.1 Transportation Conditions, Issues and Concerns

The NRA is subject to severe weather conditions, including floods, earthquakes, and landslides which cause major disruptions to the transportation network. The terrain is mountainous; therefore many of the roads running through the site are winding and rough. These winding areas also slow down traffic, reduce visitor densities, and promote the sense of remoteness from nearby population centers. The road conditions also make response by law enforcement and emergency response vehicles more challenging and time consuming. Currently, it is difficult for many potential visitors to access and tour the NRA without a private car.

- **Access** – Because of the enormity of the site and its many access points and attractions, the public often has difficulty accessing specific locations in the NRA. This is due to inadequate information and signage, multiple ownership and identities, and the complexity of the transportation network leading to the sites. Access becomes intimidating to the visitor. In addition, many access points require driving through and parking near residential areas, which can disturb local residents (See Figure 3).



**Figure 3.**



- **Wayfinding** – Wayfinding is a problem accessing the NRA and within the NRA. Visitors need more information about accessing the Park before starting their trips, as well.
- **Radio Travel Information** – Currently the NRA has a radio travel information system that travelers can access on their AM radio to provide updates on road conditions. Unfortunately, the system does not work as well as it could and frequently a listener will hear static rather than travel advisories.
- **Commuter Traffic** – Downtown Los Angeles lies just east of the Santa Monica Mountains. There is a large amount of commuter traffic that runs parallel and through the Santa Monica Mountains each day. The Ventura Freeway (U.S. Highway 101) runs east-west just north of the site (from about one mile to four miles from the NRA boundary). Pacific Coast Highway (PCH or California Route 1), which runs along the coast adjacent to the southern edge of the NRA, also experiences substantial daily traffic volumes. The travel demand models for 2010 indicate that congestion on PCH will continue to worsen. Already, this corridor is designated as one of the 13 most congested corridors of the General Plan by the city of Los Angeles. Despite the windiness of the north-south roads connecting Ventura Freeway and PCH, Las Virgenes Road/Malibu Canyon Road and Kanan/Dume carry a significant amount of commuter traffic between the two arterials. However, by 2015, these north-south roads also will be operating at capacity.

According to traffic analysis conducted in 1998, the Ventura Freeway (from Las Virgenes Road to Kanan Road) had an Average Daily Traffic (ADT) of 183,200, resulting in a Level of Service (LOS) E, as defined by the Highway Capacity Manual. Mulholland Highway (from Topanga Canyon to Old Topanga Canyon) had an ADT of 7,400 causing a LOS D. PCH (from State Route 23 to Point Mugu on the one-lane stretch) had a LOS D caused by an ADT of 10,800. The worst congestion is usually experienced heading towards Santa Monica and towards I-10 on Sunday evenings, when eastbound traffic is stop-and-go for miles.

- **Conflicts Between Drivers** – There are conflicts on the road due to the different behaviors exhibited by drivers who are commuters and others who are there as tourists and wish to enjoy the scenery. This is particularly problematic at peak traffic times. The number of pull off lanes is limited and not desirable to adjacent property owners.
- **Public Transit** – Public transit to the Santa Monica Mountains is inadequate. The Metropolitan Transit Authority (MTA) bus route 434 runs from Los Angeles to Malibu, stopping about half way down the NRA beachfront at Trancas Canyon and PCH. Peak weekday frequency consists of five buses per hour with irregular headways (total of 36 in one direction). Weekend service is less frequent with 29 buses serving the route on Saturdays (in one direction) and 19 serving the route on Sundays. This bus line connects to other bus routes that extend into the greater Los Angeles area. In addition, there are buses that run along the Ventura Freeway, which primarily serve commuters. They do not serve the NRA. Metrolink serves Moorpark, which is located north of Thousand Oaks and north of the NRA. However, there is no public transit that links the rail stop to the NRA.
- **Charter and School Buses** – Charter and school buses visit the NRA, including day outings by visitors from communities throughout southern California, such as school children or senior citizens. Satwiwa Native American Indian Cultural Center is the location for many educational programs and therefore receives many school bus groups. Between October to June there is an average of about one bus every weekday.
- **Summer Beach Bus** – The communities of Calabasas and Agoura Hills each run a summer beach bus that takes passengers to Zuma Beach. The bus has been running for about four or five summers. However, the buses only make stops within the originating community and do not stop along the route until reaching Zuma Beach. The shuttle systems charged a fee of 50 cents per direction; the bus systems do not generate surplus revenues and the buses still have to contend with Malibu's summer traffic gridlock.
- **Shuttles** – The city of Calabasas has developed several interesting transportation programs using shuttles and dial-a-ride systems. The shuttles serve different populations (outside the boundaries of the NRA) and the services are contracted through different agencies; however, they use the same service provider. The vans are white and a large magnetic sign with the logo of the agency is easily attached to the side of the van. When the operator makes a trip for a different agency the same day, all s/he needs to do is to replace the first magnetic sign with a second. In this way, the user gets clear information, the identities of each agency are maintained, and the fleet experiences much higher utilization.



- **Biking** – Biking both to access the site and to view the site is highly popular. (See Figure 4) The Bicycle Plan for Los Angeles points out that Los Angeles is a “nearly ideal location to encourage bicycle usage in place of automobiles. Excellent climatic conditions for bicycling in southern California prevail approximately 340 days per year.” This trend will continue as long as conflicts with other modes (e.g., cars, horses) are minimized. Safety concerns are most pressing when accessing the NRA. Roads are narrow and do not have adequate room for bike lanes or trails next to them. Conditions along PCH are further aggravated by the number of cars parking along the sides of the road. Greater attention to bike trails and paths is addressed in the city of Los Angeles’ current bicycle planning program.

**Figure 4.**



- **Pedestrian Travel** – The Backbone Trail links major Park sites for non-motorized modes.
- **Equestrians** – Horses are permitted in the NRA. However, the equestrian population resists sharing paths and facilities with bikers. The equestrians try to keep apart from the biking population as much as possible. Horse rentals are available from nearby vendors.
- **Water Transportation** – There are two piers within the Santa Monica Mountains NRA – Santa Monica Pier and Malibu Pier. A third was proposed in the 1982 GMP for Paradise Cove, just east of Point Dume on the peninsula, but was not built. Develop-

ment of water transport other than private boating is possible at these sites, for both the tourist and commuter populations. Catamarans could provide water transport for visitors without the need for a pier. Most likely such a service would best be handled as a private enterprise.

- **Parking** – There are approximately 50 parking areas that serve the beaches, trailheads, and other NRA visitor areas. The largest areas are adjacent to the beaches along the PCH and can hold a 100 or more vehicles. Trailhead parking areas are smaller and hold less than 50 vehicles. The more popular parking areas are paved (See Figure 5); the more remote spots are unpaved. Overcrowding of the facilities creates safety concerns and an unattractive introduction to the Park and trailhead.

Figure 5.



- **Trailhead Parking** – There is significant overcrowding at parking lots on the weekends, especially at popular locations like Cheeseboro and Palo Comado Canyons (See Figure 6). Here the parking lots fill up by mid-morning on weekends. Visitors park illegally along the road or are forced to drive elsewhere. There are now plans to expand the parking area at Cheeseboro Canyon.



Figure 6.



- **Beach Parking** – Fees are charged for parking at the beach locations. In order to avoid paying a fee, people often park along Pacific Coast Highway and walk the additional distance. This scenario creates a very dangerous situation for pedestrians and drivers when they illegally cross PCH.
- **Impacts of Floods, Landslides, and Seismic Instability** – Heavy rains and seismic instability result in flooding, landslides, and road closures. For example, the Happy Hollow access road suffers from serious erosion problems and has been rebuilt and restored on a regular basis because of these impacts and will eventually be removed from service completely.

### 3.2 Community Development Conditions, Issues and Concerns

The Santa Monica Mountains are under tremendous pressure from the urban environment that surrounds it. The population of Los Angeles is increasing and development in the area continues; the Santa Monica Mountains cannot avoid being impacted.

The Santa Monica Mountains NRA is unique in that it is a large site located very close to one of the major population centers of the United States. According to the NRA staff, it is

estimated in 1997, one in every 16 Americans lived within a two-hour drive of the NRA. The communities encompassed by or surrounding the NRA are unique in character. They manage to preserve a community spirit and identity and space separate from Los Angeles. The Park has \$6 million from TEA-21 available for land acquisition for the construction of recreation trails to preserve the land and the improve quality of the environment.

### **3.3 Natural or Cultural Resource Conditions, Issues and Concerns**

The Santa Monica Mountains is a unique ecological site. It is one of only five Mediterranean biomes on the planet. The biome contains 26 ecosystems. It is the smallest and least undisturbed biome on the planet.

The Santa Monica Mountains are rich in history and culture. There are over 1,000 documented archeological sites within the Park boundaries, including 26 known pictograph sites that are sacred to the Native American population. The Santa Monica Mountains are the traditional home of two of the largest Native American populations in California, the Chumash, and the Gabrielino/Tongva. Over 73 sites in the Santa Monica Mountains are potentially eligible for listing on the National Register of Historic Places. In addition, the Santa Monica Mountains have been used as settings in movies since the 1920s and represent a unique feature in American cultural history.

In addition to the main NPS Visitor Center, the Park has a number of other contact stations and natural and cultural exhibit locations. The hours of service for these locations vary; limitations are due to staffing constraints. These sites include:

- Satwiwa Native American Indian Culture Center;
- Malibu Creek State Park Visitor Center;
- Malibu Lagoon Museum;
- Paramount Ranch filmmaking center;
- Will Rogers State Historic Park;
- Topanga State Park Nature Center;
- Sooky Goldman Nature Center; and
- Charmlee Nature Center.

The NPS staff expressed concern that greater attention is paid to the transportation network for the public than for the wildlife. The sites within the NRA must provide better passage for wildlife to move comfortably along the range of the site to ensure the preservation of the diverse wildlife populations in the Santa Monica Mountains.

### **3.4 Recreational Conditions, Issues and Concerns**

The most commonly used service is the Park trail network. On-site recreational activities at the Santa Monica Mountains include the following:

- Beach uses (e.g., swimming, sunbathing, surfing, beachcombing);
- Sightseeing;
- Hiking;
- Picnicking;
- Mountain biking;
- Bird watching;
- Nature study;
- Biking;
- Camping;
- Educational programs;
- Fishing;
- Horseback riding;
- Special events (e.g., festivals); and
- Other (e.g., whale watching, hang gliding).

Public campgrounds are located at Point Mugu State Park, Leo Carrillo State Park, Malibu State Park, and the NPS' Circle X Ranch. The campground at Circle X Ranch currently is closed due to flood damage. Private RV parks in the area provide facilities for recreational vehicle camping. There are also numerous hotels and motels located in and near the NRA.

According to a visitor survey, most visitors did not stay overnight at a motel, hotel, or campground in the area. Of the five percent of visitors who did stay overnight, half stayed two nights in the area, and 38 percent stayed one night.

There are no concessions on the site. Food and supplies are available in surrounding cities and within the Park in Topanga and Malibu.

Handicapped accessibility varies within the NRA. Many sites are accessible to some degree. All of the parking lots contain handicapped parking. Fully accessible trails designed for people with physical and/or visual limitations are available in Upper Franklin Canyon and Malibu Creek State Park.

The Park is proposing to locate a Visitor Center on the Santa Monica beach strip to serve as a contact facility because the beaches get a large portion of the NRA's visitation. In addition to limited parking along Pacific Coast Highway, traffic turning across PCH in Santa Monica could cause backups and difficult traffic conditions. The Park wants to

target the pedestrian population coming from the beach for the Visitor Center; motorists from PCH would serve as a secondary source of visitation.

The Park has and is continuing to develop several more educational programs. Most events take place on-site; a limited number of “pre-site” visits take place in nearby schools. Materials promoting the Santa Monica Mountains and its programs are being distributed at airports, as hotel rack cards, and in welcome centers. The Park is considering the possibility at some point in the future of loaning audiotapes to visitors in cars when they arrive that would take them through a specific route and describe the different scenery and features in the area. Additionally, the Park would like to expand the public use of its Web site to include more educational materials about the Park for visitors to access prior to their trip.

## ■ 4.0 Planning and Coordination

### 4.1 Unit Plans

The Santa Monica Mountains NRA GMP was completed in 1982. The NRA staff are in the process of updating the GMP, which is almost complete in draft form. Sections of the draft GMP were provided for this study. With the exception of the visitor survey (Visitor Services Project, Santa Monica Mountains NRA), which was completed in 1993, most of the transportation and Park studies were complete in the 1980s and need to be updated.

### 4.2 Public and Agency Coordination

In managing the Santa Monica Mountains NRA, the NPS works with and coordinates its planning with approximately 65 governmental agencies, including California State Parks, the Santa Monica Mountains Conservancy, the County of Los Angeles, the Southern California Association of Governments (SCAG), and local governments.

A new general management planning process for the NRA was begun in September 1997 to replace the 1982 GMP. The process is being led and coordinated by the NPS, California State Parks, and the Santa Monica Mountains Conservancy. Meetings have been held with representatives from more than 70 agencies and jurisdictions within the Santa Monica Mountains and surrounding communities.

To increase the opportunity for public participation and input, all newsletters and documents that overview the GMP process and its status have been published in both English and Spanish.



## ■ 5.0 Assessment of Need

### 5.1 Magnitude of Need

The Santa Monica NRA experiences substantial traffic congestion within and surrounding the site. Most of the roads in or around the NRA are running at capacity during peak hours now. In 2015 most of them will run at capacity all the time. This congestion could be mitigated considerably through the use of alternative transportation strategies.

The use of Alternative Transportation Systems (ATS) is likely to increase visitation levels to Santa Monica NRA. Implementation of ATS, especially shuttle and tourist vans, could increase visitation as well as the duration of the visit itself. The amount of increased visitation would depend on the quality of service provided, frequency, route, reliability, and cost.

### 5.2 Feasible Alternatives

There is a range of ATS strategies that could be implemented in the Santa Monica Mountains NRA. The key strategies are outlined below.

- There are several opportunities for shuttle services throughout the NRA. Some alternatives are presented below.
  - A tourist shuttle could transport the visitor through the entire length of Mulholland Highway, starting with Coldwater Canyon and Franklin Canyon in the east and ending at Sequit Point in the southwest. The trip would expose the visitor to a variety of environmental, historical, recreational, and scenic sites. The road is quite windy and would require a slow pace. It passes through many residential areas where there are few formalized pullouts. Some sections of the road are unpaved. Automatic gates would facilitate travel for shuttle routes through the terrain while keeping the casual motorist out of restricted areas.
  - Ideally, it would be advantageous to have demand responsive shuttles servicing several points within the NRA. This would allow hikers to experience as much of the Park as possible, and not have to return to their starting point. The shuttle bus would then pick them up at the end of their journey. However, the enormity of the NRA would still require a loop service stopping at relatively few “stations,” until mobile GPS units which would help identification and routing, drop in cost.
  - If Calabasas and Agoura Hills continue to run shuttles to Zuma Beach in the future, efforts could be made to encourage them to include one or two NRA trailheads as well and connect the service to a future park-and-ride facility. Summer bus shuttles could be considered to connect population centers in Santa Monica, Los Angeles, and Malibu to several of the NRA beaches, as well.
  - One summer shuttle could connect beaches to the existing Metropolitan Transit Authority (MTA) buses or Metro Rail stop in Canoga through U.S. 101. However, according to one of the city planners for Los Angeles, it is unlikely that an

additional Downtown Area Short Hop (DASH) route would be financially viable for the likely passenger load.

- Kanan Dume Road links Point Dume to Rocky Oaks, Mulholland Highway, and Paramount Ranch. The Park is planning on installing a new trailhead about a mile north from Pacific Coast Highway on Kanan Dume Road. It would be ideal to run a circular transit system from Malibu Canyon to Mulholland Highway, crossing over to Kanan Dume and descending back to the point of beginning via PCH. The trail access point could accommodate a bus and serve as a scenic outlook. However the eight percent gradient of the mountain is steep and would probably require a bus specially outfitted to accommodate rough terrain.
  - In light of the fact there are 80 NPS staff and hundreds of volunteers, it seems probable that at least one or two vanpools could be set up among staff living in nearby areas. One employee would remain responsible for the vehicle and for driving; dispersal of employees at the NRA could occur by the vanpool driver or by other NPS staff. After a test period, the program could be evaluated to see if there are opportunities for more vanpools among the NPS staff and volunteers.
- **Transit** – Coordination with local transit services is required to improve access to the NRA. Currently the Metro Rail line terminates in Hollywood. Plans for expansion of the Metro Rail have been temporarily suspended. There is limited MTA bus service by the beaches along PCH. Ideally, bus services could extend the length of the NRA beachfront out to Point Mugu with shorter and more regular headways. Bus service to the Park could be made possible from the Ventura Freeway. Any public transit service should stop at transit and tourist shuttle staging areas, which serve the Park. Additionally, all transit shuttles could include a pick up from the Metro Rail line.
  - **Park-and-Ride** – Park-and-ride facilities along the Ventura Freeway have been considered by the California Department of Transportation (Caltrans) for several years. If park-and-ride facilities are serviced by frequent express bus and feeder bus services leading to key employment centers in downtown Los Angeles, it could reduce the daily commuter traffic flowing north-south through the mountains and reduce the negative impacts on the natural resources. The possibility of park-and-ride facilities has been discussed in the draft general management plan. One location that could be considered is just north of Las Virgenes Road at a General Motors facility.

When Paramount Ranch is not being used for a special event, it could be used for overflow parking or serve as an internal park-and-ride location from which tourist shuttles could begin and end a trip.

- **ITS Information System** – A traveler and parking information system would reduce the pressures on the transportation structure by providing status and routing information. Real-time directional signs leading to available parking and recreational sites would reduce aimless driving. Information and routing for transit would facilitate travel for visitors by public transportation. One in 12 Americans live in close proximity to the site; increased information on transportation options would help reduce traffic congestion. Such a system could tie into the Santa Monica Mountains' existing Web site, include real-time information on traffic, programs, and activities, and link to other information systems.

- **Bicycles** – Several bike initiatives are underway and there is interest in several more. TEA-21 moneys are creating additional bike lanes from Thousand Oaks to Calabasas. Separate, dedicated bike lanes would be ideal both along Pacific Coast Highway (PCH) and north-south through the NRA. Safety considerations on PCH warrant a separate biking facility because of the large amount of street traffic, but seemingly insurmountable problems exist because of the mountains abutting the road. Creating bike lanes in this terrain would require an “engineering marvel.” Some municipalities have prohibitions on street widening. Some funding has been secured from Congestion Mitigation and Air Quality Improvement (CMAQ) funds to study the feasibility of a beach bike path.
- **Boat Tour** – The 1999 draft GMP describes a “scenic coastal tour” in one of its alternatives. The boat tours could begin at the Malibu and Santa Monica Piers and travel the coast of the NRA. According to the GMP, the tours would generate a negligible amount of automobile traffic along PCH. Access is also available by MTA bus service and pedestrian walkways. The boat tours could run in the peak summer months. Initial service could include four trips a day for an hour-long boat ride; service levels could increase as demand rises. This would allow tourists to experience the Santa Monica Mountains in a completely different way.

## ■ 6.0 Bibliography

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Visitor Services Project, Santa Monica Mountains NRA (study of Park visitors), Report 55, University of Idaho, 1993.

## ■ 7.0 Persons Interviewed

Arthur Eck, Superintendent, Santa Monica Mountains NRA

Bonnie Clarfield, Law Enforcement Ranger, Santa Monica Mountains NRA

Lorenza Fong, Cultural Resources Manager, Santa Monica Mountains NRA

Mary Devine, Transportation Planner, National Park Service

Michael Davis, City Planner, Department of City Planning, City of Los Angeles

Robert B. Yalda, Director of Transportation/Intergovernmental Relations, City of Calabasas

Sandra Balmir, Transportation Planner, FHWA and FTA, U.S. Department of Transportation

Woody Smeck, Deputy Superintendent, Santa Monica Mountains NRA